NOTE: The document identifier and heading have been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

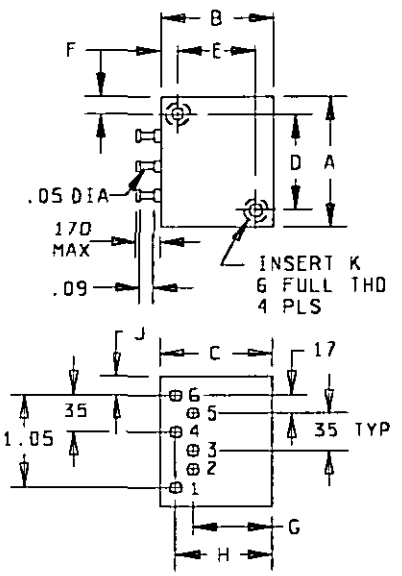
MIL-PRF-27/335C
17 January 1986
SUPERSEDING
MIL-T-27/335B
16 January 1985

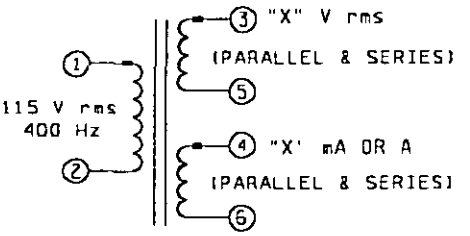
PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, POWER, 50 VOLTAMPERES, 400 HZ, TF5S03ZZ

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the transformer described herein shall consist of this specification and the latest issue of MIL-T-27.





(SEE TABLE I FOR VALUE OF "X")
CIRCUIT DIAGRAM

	INCHES	mm
A	2.00 ±.02	(50.8) ±(.5)
B	1.62 ±.02	(41.1) ±(.5)
C	1.81 ±.02	(46.0) ±(.5)
D	1.50 ±.02	(38.1) ±(.5)
E	1.12 ±.02	(28.4) ±(.5)
F	.25 ±.04	(6.4) ±(1.0)
G	1.50 ±.04	(38.1) ±(1.0)
H	1.69 ±.04	(42.9) ±(1.0)
J	.47 ±.04	(11.9) ±(1.0)
K	.138-32 UNC 2B	

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on the top and sides of case.
4. Dimensional tolerance shall be ±.02 unless otherwise specified.
5. For series output connect terminals 4 and 5 together. For parallel output connect pins 3 to 4 and 5 to 6.

INCHES	MM
.02	0.5
.05	1.3
.09	2.3
.17	4.3
.170	4.32
.35	8.9
1.05	26.7

FIGURE 1. Dimensions and configurations.

REQUIREMENTS (When numbers in parentheses, i.e , (1-2) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical ratings

Primary voltage (1-2) 115 volts rms, 400 ±20 hertz

Secondary voltage and current (3-6) See table I.

Voltampere 50 voltamperes.

Working voltage (1-2) 535 volts peak.

Design and construction

Dimensions and configuration See figure 1

Duty cycle Continuous.

Case Encapsulated

Material Epoxy fiberglass.

Terminals: Turret type.

Height .170 inch, maximum.

Weight .84 pound, maximum.

Operating temperature range -55°C to +130°C.

Altitude 70,000 feet.

Terminal strength MIL-STD-202, method 211, test condition A, 2 pounds.

Dielectric withstanding voltage (each winding, secondary windings connected in series)

At sea level 1500 volts rms.

At reduced barometric pressure 1.25 times the peak working voltage specified

Electrical characteristics:

Rated load With 115 volts rms and 400 Hz in (1-2), and rated current in secondary, the voltage across (3-6) shall be as specified in table I, ±5 percent.

Efficiency. 90 percent minimum at rated load.

Temperature rise 35°C with 115 volts rms, 400 hertz across (1-2) at an ambient temperature of 95°C, full load terminals (3-6).

Regulation: $\frac{\text{Voltage (no load)} - \text{Voltage (rated load)}}{\text{Voltage (rated load)}} \times 100$

Shall not exceed 10 percent

Polarity Additive, with terminals 2 and 3, and 5 and 4 connected

Marking location See figure 1.

Part number M27/335- (dash number from table I)

TABLE I Electrical ratings.

Dash number M27/335	Secondary voltage (3-6) (V rms)		Secondary current (3-6) (amperes)	
	Series (CT)	Parallel	Series	Parallel
-01	10	5	4.00	8.00
-02	12.6	6.3	4.00	8.00
-03	16	8	3.12	6.24
-04	20	10	2.50	5.00
-05	24	12	2.08	4.16
-06	34	17	1.47	2.94
-07	40	20	1.25	2.50
-08	56	28	0.89	1.78
-09	88	44	0.56	1.12
-10	120	60	0.41	0.82

QUALITY ASSURANCE PROVISIONS.

Extent of Qualification.

Qualification testing and approval to M27/332-10 and M27/337-10 shall be sufficient to grant qualification approval to MIL-T-27/332 through MIL-T-27/337 inclusive, all parts.

Qualification testing and approval to M27/335-10 shall be sufficient to grant qualification approval to M27/335-01 through M27/335-10.

Revision letters are not used to denote changes due to the extensiveness of the changes.

Custodians:
Army - ER
Navy - EC
Air Force - 85

Review activities.
Army - AR
Navy - OS
Air Force - 11, 17, 99
DLA - ES

User activities
Army - ME
Navy - AS, MC
Air Force - 19

Preparing activity.
Army - ER

Agent
DLA - ES

(Project 5950-0558-04)